This listing of claims will replace all prior versions, and listings of claims in the application.

In the Claims:

1. (currently amended) A method for increasing *Agrobacterium* transformation ~~frequencies~~ efficiency in a host plant, said method comprising:

   a. increasing histone levels in the host plant compared to normal levels of histone in the host plant; ~~and~~

   b. transforming the host plant with *Agrobacterium*; and.

   c. increasing the transformation efficiency of the host plant.

2. (original) The method of claim 1, wherein the histone is an H2A histone.

3. (original) The method of claim 2 wherein the H2A histone is encoded by *Arabidopsis RAT5*.

4. (original) The method of claim 1 wherein transformation frequencies are measured by the number of tumors produced in the host plant.

5. (original) The method of claim 2, wherein the H2A histone is H2A-1.

6. (withdrawn) A plant cell with an overexpression of plant histones sufficient to increase efficiency of transformation of the plant cell by *Agrobacterium*.

7. (withdrawn) The plant cell of claim 6 wherein the plant histones are of the H2A histone family.

8. (withdrawn) The plant cell of claim 7 wherein an H2A histone is encoded by *Arabidopsis RAT5*.

9. (currently amended) A method of increasing *Agrobacterium* transformation ~~frequencies~~ efficiency in a host plant, the method comprising:

   (a) introducing at least one copy of a polynucleotide sequence encoding a plant histone protein to the host plant;

   (b) selecting a host plant expressing the polynucleotide sequence encoding a plant histone protein; ~~and~~

   (c) transforming the host plant expressing the polynucleotide sequence encoding a plant histone protein with a DNA molecule of interest using *Agrobacterium*; and

(d) increasing the transformation efficiency of the host plant.

10. (original) The method of claim 9, wherein the host plant is a monocot plant.

11. (original) The method of claim 10, wherein the monocot plant is maize.

12. (original) The method of claim 9, wherein the polynucleotide sequence encoding a plant histone protein is a member of an H2A gene family of *Arabidopsis*.

13. (original) The method of claim 12, wherein the member of the H2A gene family of Arabidopsis is *RAT5*.

14. (currently amended) The method of claim 10 further comprising adding L-cysteine to media used in cultivating the host plant, wherein the host plant is monocot.

15. (withdrawn) A transgenic plant comprising at least one additional copy of a polynucleotide sequence encoding a plant histone H2A protein.

16. (currently amended) A method for increasing stable *Agrobacterium* transformation efficiency in a monocot host plant ~~plants~~, the method comprising:

(a) introducing a nucleic acid sequence encoding a plant histone H2A into a host plant;

(b) ~~(a)~~ selecting a host plant material expressing ~~a polynucleotide sequence encoding a~~ the plant histone H2A protein;

(c) ~~(b)~~ infecting the host plant material with a DNA molecule of interest by infection with an *Agrobacterium* strain;

(d) ~~(c)~~ providing at least one antioxidant in a cocultivation medium;

(e) ~~(d)~~ selecting the infected ~~cells~~ material for transformants expressing the DNA molecule of interest; and

(f) increasing the transformation efficiency in the monocot plant.

17. (original) The method of claim 16, wherein the monocot plant is maize.

18. (original) The method of claim 16, wherein the antioxidant is L-cysteine.

19. (original) The method of claim 18, wherein the L-cysteine is at a concentration about between 100 mg/L and 400 mg/L of cocultivation media.

20. (original) The method of claim 16, wherein the infecting of the host plant in the cocultivation medium is for about 3 days.

21. (currently amended) The method of claim 16 wherein the host plant material is an embryo.

22. (withdrawn) A genetic construct comprising at least one copy of a histone gene that when expressed is capable of increasing transformation frequencies in a host plant.

23. (withdrawn) The genetic construct of claim 22, wherein the histone gene is H2A.

24. (withdrawn) A host cell transformed by at least one copy of a gene involved in T-cell integration wherein the gene is capable of effecting overexpression of histone to enhance plant transformation frequencies.

25. (withdrawn) The host cell of claim 24, wherein the gene is the *RAT5* gene of *Arabidopsis*.